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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,131	10/04/2001	James C. Tuthill	21488/04040	4066

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EXAMINER

WALSH, BRIAN D

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/971,131	Applicant(s) TUTHILL, JAMES C.	
	Examiner Brian Walsh	Art Unit 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because figures 2 and 3 contain numeric dimensional information. Additionally, figure 3 contains text other than reference characters, specifically, the term "Dexter" appears on the drawing. Although a report from the draftsman has not been submitted at this time, the Examiner notes that figure 3 is not labeled properly.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "continuous ring" of claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "64" on page 3, line 30.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "62" and "60" have both been used to designate "nut."

For purposes of this examination, the Examiner assumed reference character "60" pertains to the "nut," "62" refers to "exterior flats" and "64" (which was not found in the drawings) refers to "nut corners."

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3, 9, 11, 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

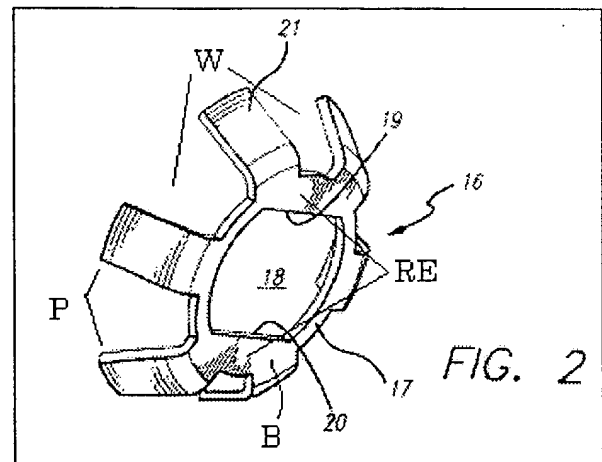
In claims 3, 9 and 14, the Examiner contends that the phrase "D-shaped" is unclear. In claim 11, the Examiner notes that the use of the limitation "T-shaped" is unclear. It is possible for the limitations "D-shaped" and "T-shaped" aperture to be interpreted in a number of ways. The Examiner notes that the aperture, as shown in figures 2 and 3 as (27) and (34), appears to be a truncated circular aperture. Claims 3, 9, 11, 14 and 15 will be examined as best understood.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 – 2, 3 (as best understood), 4 – 5, 8, 9 and 12 – 13, 14 – 15 (as best understood) and 16 – 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Duran.

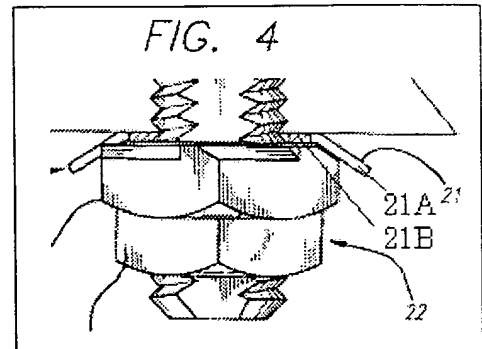
Regarding claims 1, 8, 13 and 16 – 17, Duran discloses a nut retainer (16) for preventing disengagement of a nut threadedly engaged to a



bolt comprising an integral base (B) section and peripheral section (P) maintaining a cup-shaped

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configuration. Duran also discloses the base section (B) defines a central aperture (18) and wherein the peripheral section (P) includes a plurality of fingers (21) which define one or more longitudinal windows therebetween. The fingers (21) include nut engaging surfaces on the interior surface of the peripheral section. It is clear from figure 2, Duran further discloses the fingers include a flared end bent towards the center of the spindle nut retainer.



Regarding claim 2, it is clear from figures 4 and 10 that Duran discloses the nut engaging surfaces each comprise two angled surfaces (21A, 21B). Please refer to a partial capture of figure 4 to the right.

Regarding claims 3 and 9, Duran discloses the central aperture (18) is D-shaped.

Regarding claim 4, Duran discloses the base section (17) of the nut retainer is flat.

Regarding claim 5, Duran discloses the base section (17) is reinforced (RE) around the central aperture (18).

Regarding claim 12, Duran discloses the nut retainer (16) is made form steel (Col. 2, lines 46 – 47).

Regarding claims 14 and 15, Duran discloses the base (11) has a “D-shaped” cross-section (14) adjacent to the first end and the retainer (16) circumscribes the cross-section of the base resulting in a rotational interference between the base and the nut retainer.

Regarding claim 2, if Applicant does not consider the two angled surfaces, as taught by Duran and as specified above, to be nut engaging surfaces then the following rejection based on 35 USC § 103 would apply.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 7 and 11 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Duran in view of Giachinta et. al.

Regarding claim 2, Duran sets forth all of the elements as set forth in the above rejection, however, Duran fails to disclose nut engaging surfaces each comprising two angled surfaces.

Giachinta et. al. discloses a nut retaining system similar to the instant invention. Giachinta discloses a nut retainer (12) having nut engaging surfaces (21) each comprising two angled surfaces (26) (Col. 3, lines 60 – 64).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the nut engaging surfaces of Duran to include the two angled surfaces as taught by Giachinta et. al. since Giachinta et. al. teaches the use of the surfaces engaging a nut in order to provide an anti-rotation system for a nut retaining system (Col. 1, line 64 – Col. 2, line 9).

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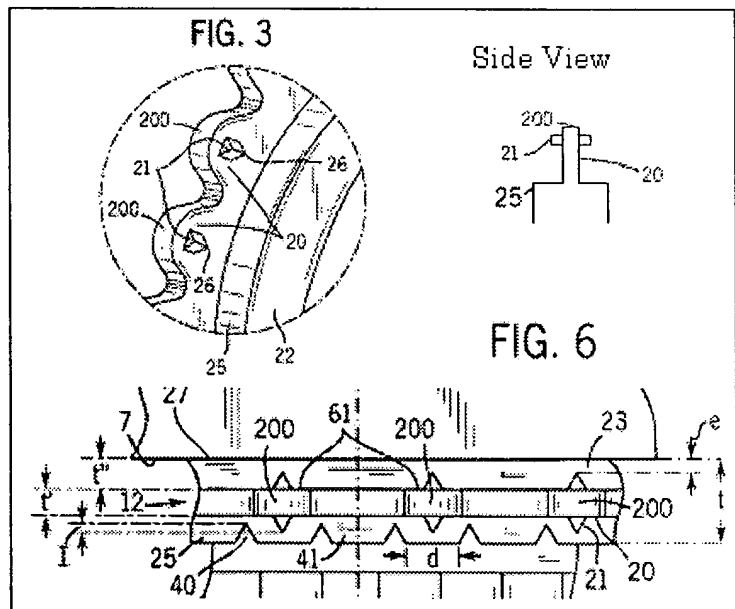
Regarding claim 7, Duran discloses all of the elements as set forth in the above rejections, however, Duran fails to disclose an integrally formed ring at an end opposite the base section.

Giachinta et. al. discloses a retainer (12) for preventing disengagement of a nut (14) to a base (2). Giachinta et. al. discloses a peripheral section (200 in figure 3) including an integrally formed ring (25 in figure 3) at an end opposite the base section (23 in figure 6).

Regarding claim 11, Duran discloses all of the elements as set forth in the above rejections, however, Duran fails to disclose "T-shaped" fingers.

Giachinta et. al. discloses a retainer (12) for preventing disengagement of a nut (14) to a base (2). In figures 3 and 6, it is clear that Giachinta et. al. discloses the fingers (200) have protrusions (21) on both a first and second side. When seen from a transverse view, the fingers would appear to have a "T-shape." Please see the attached drawings.

Therefore, it would have been



obvious to one having ordinary skill in the art at the time the invention was made to modify the retainer of Duran to include the ring and "T-shape" fingers as taught by Giachinta et. al. since Giachinta et. al. discloses the use of the ring in combination with the protrusions of the retainer and nut in order to prevent rotation (Col. 1, lines 64 – 67 and Col. 3, lines 39 – 40).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duran in view of Worthing.

Duran discloses all of the elements as set forth in the above rejections, however, Duran fails to disclose the retainer is made from a polymer.

Worthing discloses a coupling system (72) comprising a retainer (88) similar to the instant invention. Worthing discloses each of the structural members in the coupling system can be formed from plastic (polymer).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the retainer of Duran to be made from a polymer as taught by Worthing since Worthing teaches plastic may be used in the place of stainless steel or other materials to provide a suitable structure capable of handling the accuracy and forces required (Col. 4, lines 7 – 11).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duran in view of Cronin II et. al.

Duran discloses all of the elements as set forth in the above rejections, however, Duran fails to disclose the base section comprises a tab bent in line with the fingers.

Cronin II et. al. discloses a nut retainer system (40) including a central aperture in a peripheral section (20) with a base section (24) wherein the base section comprises a tab (29) bent in line with fingers (28). Please refer to figure 1.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the retaining system of Duran to include the bent tab of

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Cronin II et. al., since Cronin II et. al. discloses the use of the tab in order to engage a keyway, flat or slot in a spindle (Col. 2, lines 62 – 64).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nago, Schmitt, Wing et. al., Grube, Bias, Harbin, Teramura, Bynum, Slesinski et. al., Hashimoto and Riley all disclose nut retaining or anti-rotation systems comprising elements similar to that of the instant invention.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW
November 21, 2002



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